

## DANGERS OF ETHYL GAS EXAGGERATED SAY RESEARCH MEN

"Carbon Monoxide Greater Menace Than Poisoning From Ethyl Gasoline"

### GIVES GREATER MILEAGE

"Reports published by current magazines and newspapers grossly exaggerate the possibility of danger from the use of ethyl gasoline in automobile motors," say Mr. Tyler Fuwa and Mr. D. P. Barnard, Research Associates in the Department of Chemical Engineering. "Under ordinary driving conditions assuming that all lead fed into the motor appears in the exhaust gases, more than a ton of deadly carbon monoxide is liberated for every pound of lead set free."

Ethyl gas, the so-called "looney gas," is a mixture of approximately three cubic centimeters of lead tetraethyl in a gallon of gasoline. Those opposed to the use of this preparation claim that the lead compounds thrown out of the exhaust will in time bring on chronic lead poisoning to those exposed to it. Its effects would be felt especially in the larger cities where automobile traffic in narrow streets is heavy, as the concentration of exhaust gases is high under such conditions. Calculations made by Mr. Fuwa and Mr. Barnard show that any ventilating system that will keep carbon monoxide content in the air below the danger point will handle the lead from the exhaust gases 20 times over. Carbon monoxide is even more deadly than the lead compounds released and its effects are similar in that the poison enters the system and circulates with the blood for a long time before being thrown off. It is possible that the use of ethyl gas will actually decrease the amount of carbon monoxide exhausted by a given amount of gasoline since combustion is more perfect with the treated fuel.

### Accidents Due to Carelessness

Accidents in the manufacturing plants where ethyl gas is prepared have been due to carelessness on the part of the unskilled operators employed there. Although pure lead tetraethyl is a deadly poison in itself, it is not dangerous to handle when mixed with gasoline because of the small amount of the pure substance used, less than one-tenth of one percent by volume being present. Mr. Fuwa pointed out that the accidents in manufacture were no reason for stopping the making of the mixture, since occasional accidents happen in other industries which prepare explosives and poisons. "Nobody thinks of preventing the manufacture of the nitrates for fertilizer just because one plant has an explosion in which several are killed," he stated.

(Continued on Page 4)

## RUSE LURES SENIORS TO 3-410 FOR PHOTOS

### Technique Uses Beautiful Maiden To Attract Delinquents

Sixty-five Seniors visited the new assistant in the newly made studio in room 3-410 between Friday morning and Saturday noon making the total number of 263 Seniors to have visited the studio in the two weeks that the photographer has been at the Institute.

The young lady in the studio has enticed the Seniors to stand before the Camera when all other methods had failed. First the studio was brought to the Institute eliminating the disagreeable journey to Boston, and a man stationed here 5 hours a day to make a permanent record of the Seniors' smiling faces. Every one expected to see the room jammed with Seniors fighting to have their pictures taken, but alas, the room was deserted for almost a week and a half. Then the brilliant minds of the strategy board got together to find out the reason. They decided to have a new assistant in the studio who could smile at the Seniors in such a way that the Seniors would see their duty to the Technique and the Senior Class. The idea was a huge success, the Seniors are flocking to the studio to arrange appointments with the young lady, the photographer is working overtime and as a result the year book will be full of photos, the Senior Class officers will be satisfied and all because the strategy board realized the weakness of Tech Seniors.

## Students Will Study Stars at Close Range

According to rumor issuing from the Military Science department, several students have been attempting to borrow high powered field glasses from some of the officers. None of the men would state their purpose for wanting the binoculars but all agree that they would have no use for them after tonight. Some students have endeavored to explain this sudden demand by the fact that the men are merely interested in observing the stars in the heavens tonight. Others suggest that the glasses will be used to observe stars of a different type from the heavens. Incidentally a very popular musical comedy with a rather alluring name opens tonight at a local theater.

## LARGE ATTENDANCE AT THIRD CONCERT

### Specialty Acts Well Received At Concert By Musical Clubs In Concord

Sponsored by the West Concord Woman's Club, the Combined Musical Clubs gave their third concert this term on Friday evening at Veteran's Hall, Concord. In spite of the fact that a concert was also being given in Concord at the same time by the Boston Symphony Ensemble, the Club's musicale was attended by a very large audience.

The following specialty acts were featured at the concert: trombone solo by A. R. Keith '28, banjo duet by R. Mancha '25 and D. Shepard '26, violin solo by K. M. Peterson '28, sleight of hand tricks by T. A. Knowles '27, and cornet solo by D. S. Ulrick '26. All of these were very well received, Mancha and Shepard and Peterson being recalled for additional numbers. The management has decided to retain these five acts permanently, but in the future only three specialty numbers will be presented at one concert.

### Fall Concert Comes Dec. 5

Following the concert, the jazz orchestra furnished music for dancing, which continued until midnight.

A Paul Jones dance and a confetti dance added considerably to the novelty of the evening's program.

Announcement has been made that the Combined Musical Clubs' Fall Concert will be given on December 5.

## LATIN AMERICAN CLUB DINES IN NORTH HALL

### Dean H. P. Talbot and E. L. Bowles Talk to Members at Noon Meeting

At a dinner in north hall, Walker, on Saturday, the Latin American Club was addressed by Dean H. P. Talbot '85, and E. L. Bowles of the Electrical Engineering Department.

About 50 members were present when the dinner started at 12:30. After dinner, over their smokes, they listened to the speakers, who were introduced by V. Elorza '25, president of the club.

### Dean Talbot Gave Reminiscences

Dean Talbot in his talk gave many reminiscences of his two years in Germany when he was a student. He considered that his experience there should give him considerable insight into and sympathy with the difficulties of the Latin American students in this country. He remembered in particular one of his professors in Germany whom he could not completely follow during his entire first year. The dean also expressed a regret that many of the hospitalities which the faculty would like to show foreign students were impossible because of the scattered condition of the Institute.

Mr. Bowles then told of some of his experiences with foreign students at the Institute. He said that their chief difficulty seemed to be with the language and if they would try to make their instructors realize this they would probably make better progress. He expressed his entire sympathy with the foreign student and hoped that they would not hesitate to call on him if he could ever be of any assistance to them. At the end of the dinner the club expressed to Dean Talbot, through their president, their sympathy with President Stratton, and their hopes that he would soon recover.

## DOCTOR STRATTON IS RESTING EASILY BEFORE OPERATION

News Received From Washington  
Where President Waits  
For Operation

### WILL BE AWAY SIX WEEKS

President S. W. Stratton is resting comfortably according to the latest bulletin to reach the Institute from Washington, where the head of Technology is awaiting an operation. Doctor Stratton went to the Capital last week in order to consult with his physician. It was found that the president was suffering from gall stones and that an operation was necessary. He was advised not to return to Cambridge until after it could be performed.

Dr. W. G. Morgan of Washington, the personal physician of Dr. Stratton, is in charge of the case, but as yet no date for the operation has been set. It is expected however that it will be sometime during the first part of this week according to those in touch with the president.

### Secretary With President

Dr. Stratton was joined Thursday by his secretary, Mr. Parris and will probably not return to his post at the Institute for about six weeks. The news of the impending operation was a surprise to most of those interested in Technology for he had been at his desk until his trip, which was unexpected.

Much discussion and inquiries about Dr. Stratton's condition have been heard among the student body since it was first learned that he would go under the knife, but the announcement that he would probably be absent but six weeks and was now resting comfortably has been reassuring.

## KIDDIES PERFORM AT DORM DANCE FRIDAY

The final informal Dorm Dance of the term was quite well attended at Walker last Friday evening. The promised specialty act was given by two little girls, one of whom took the part of a boy. Their first number was a minuet which they rendered in true colonial costume. A tango followed the minuet and they concluded their program with some rather intricate stage dancing. One thing noticeably lacking at the affair was the stag line. This year it has been the policy of the committee to sell only couple tickets to dorm dances while last year there was always a moderately large stag line which helped to keep things going.

The patronesses were Mrs. Pierson, Mrs. Hudson, and Mrs. Blanchard. Several of the ushers escorted them through Walker showing them the various points of interest about the building. Music was furnished by Hackett's Hotel Touraine Orchestra.

## PLANS UNDERWAY FOR DISCUSSION OF BIBLE

Plans are being made by the T. C. A. for discussion groups in Bible study. W. Head '26, manager of the division of Bible Study, and D. A. Shepard '26, director of the Religious Service department, are making changes in the plan from last year. This year there are to be more discussion groups; last year there were two, and a Faculty man is to lead the undergraduate group. Professor H. L. Bowman of the Civil Engineering department is to be the leaders. It was hoped that work with the discussion groups would start before Christmas; but on account of the examinations they have been postponed until the beginning of the second term. The foundation has already been laid by the attendance of 12 men at different lectures given recently by Bruce Curry, who is supervising on the behalf of student department of the Y. M. C. A. and Y. W. C. A. of all the colleges. Professor Curry lectured on the best methods of conducting Bible study among undergraduates and explained his method.

D. H. Keck was Technology's representative on the executive committee which had charge of the Boston lectures. Other Technology men to attend these lectures were Professor H. L. Bowman, Professor Hale Sutherland, R. W. Head '26, W. M. Ross, General Secretary of the T. C. A., T. R. Montgomery '26, E. Hartshorne '28, W. T. Kwauk '27, H. Y. Lo '26, F. C. Lin '26, H. B. Harris '28.

## ENGINEER HARRIERS ENTERED IN INTERCOLLEGIATE RUN AT VAN CORTLANDT PARK TODAY

### Captain Bemis Expected To Give Kirby Of Bull Dog Team Stiff Battle For First Place In Big Event

By C. E. McCulloch

With more than a score of colleges and universities entered, the annual struggle for the national intercollegiate cross country championship will take place this afternoon over the six mile course at Van Cortlandt Park, New York. At the crack of the starter's gun at 2 o'clock, at least five entrants from each college will be hitting the long trail for the coveted team prizes, so that 100 individual entrants is a rather conservative estimate of the pack which will run in the annual event. Although Kirby of Yale is the favorite for individual honors it is a safe bet that our own Captain Frank Bemis will give the Bull Dog harrier a tough battle for the championship.

### Technology Entrants

#### In Annual Title Run

Captain Frank Bemis  
Bill Rooney  
Don Hooper  
John Ostborg  
Roger Parkinson  
Charles DeFazio  
Maurice Davidson

## NOTED PHYSICIST TO LECTURE HERE

### Series of 20 Lectures To Be Given By Dr. Debye the Second Term

Professor P. Debye, member of the Royal Institution of London and several other societies including the "Koninklijke Akademie van Wetenschappen" of Amsterdam, will give a series of 20 lectures on "Some Aspects of Modern Physical Chemistry" during the second term beginning January 6. These lectures will be given Tuesdays and Thursdays in room 4-321 at 4 o'clock. They will be open to all and graduate students will be given credit hours of 20-60.

### Molecular Structure Discussed

"Discussion of the molecular forces under the assumption that they are all derived from purely electrical forces—of the ionic forces in solid crystals and in the electrolytic solutions,—of the behavior of neutral molecules which can be assimilated to electrical dipoles" and allied topics regarding the structure of multiple molecules will be taken up by Dr. Debye.

Dr. Debye, who was born in 1884 in Maastricht, Holland, and received his preliminary education there, entered the Technical High School of Aachen at the age of 17 to study electrical engineering. He was graduated from the University of Munchen as Doctor of Philosophy in 1908. Since then he has held chairs of Physics and theoretical Physics in the Universities of Utrecht and Göttingen.

## SOPHOMORES TO BEGIN RIFLE PRACTICE TODAY

Beginning today the Sophomores will be divided into three groups, the first and second groups under the direction of Major Bandholtz will be instructed in the use of the machine gun and automatic rifle. This group will meet in room 1-050.

The moving pictures that were shown last week to instruct the Sophomores about the different firing pieces were completed Saturday and were declared to be a huge success by the students taking the course.

Saturday when they saw the actual firing pieces that they had seen in pictures all week they knew what to expect from them.

Technology's colors have never been carried over the finish line first in an I. C. A. A. A. meet. Last year Bob Hendrie of the Engineers, in trailing the fleetfooted Verne Booth of Johns Hopkins for second honors, came mighty near to achieving this honor for Tech.

For the last four weeks, Captain Frank Bemis has been working hard with this meet in view and will call forth the best speed of the best runners tomorrow if they are to beat him across the finish line for first place. Bill Rooney and Don Hooper, of the Beaver varsity, will also place among the leaders.

### Syracuse Probable Winner

Since the establishment of the intercollegiate run 25 years ago, Cornell has romped away with individual championship honors 17 times and from 1902 to 1911, a period of ten years, maintained this record without a break. But those were in the days when Jack Moakley was cross country mentor at Cornell and the general opinion seems to be that the harriers from Ithaca will not make a very imposing showing this year.

Although Yale is favored for individual honors, it is almost a sure bet that they will not carry away the team prize. This honor seems to be reserved for Syracuse who has won the championship for the last two years. Although Syracuse may not place a runner in better than fifth position, Case, Titus, Gottlieb and Middletown of the Syracuse team can be depended upon to bunch fairly well in the early positions thereafter, so that unless the Yale runners spring a big surprise, the Syracuse colors will never be endangered for the team prize. Yale will probably place second with Columbia, Harvard and Princeton trailing close behind.

Captain Bemis, Bill Rooney and Don Hooper of the Engineers can be counted upon to finish early but the rest of the team is not sufficiently dependable to give Technology better than eighth or ninth place in the team standings.

Swarthmore may pull a big surprise for individual honors in the person of Lewis P. Burdette for they think well enough of his running ability to make

(Continued on Page 3)

## EXAM SCHEDULES WILL APPEAR IN TEN DAYS

First proof of the examination schedule for the first term has already been sent to the printer and according to the authorities it is hoped that it will be ready in about ten days. Although pains have been taken in framing a schedule that will avoid conflicts as much as possible, it is impossible to work out a schedule with no conflicts at all. All students, therefore, are urged to look through the schedule at their earliest convenience and if they have a conflict make out a conflict card so that the conflict schedule can be made as soon as possible.

## CALENDAR

Monday, November 24  
3:00-5:00—Candidates for Varsity Rifle Team report at range.  
Friday, November 28  
2:00-5:00—Varsity Rifle Practice.

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## THE UNKNOWN DONOR

THE entire student body, as well as those connected with crew, are grateful to the friend of athletics at Technology who so generously evinced his interest in a concrete way. The management and coaching staff at the boat house desire a public expression of their appreciation.

A gift was never more appropriate or timely. Lack of an up-to-date shell has hampered the varsity crews in races with crews in superior boats, but the receipt of this gift means that Technology will be on an equal footing when racing Harvard and Cornell this spring. It also means an additional stimulant to the growing popularity of crew.

The fact that Technology athletics are carried on without the great source of income a football team affords is of everlasting credit to the friends of Technology who have labored patiently and given freely. They have had no small part in the development of men at the Institute.

## EDUCATIONAL ADVANTAGES

WE have noted with regret the general lack of interest by the students in the lecture courses which the Institute offers as an addition to the general curriculum. We have had without being particularly cognizant of the fact, a series of most eminent lecturers here this fall. By no means have we fully taken advantage of the opportunities offered.

Perhaps it is incorrect to say that such an attitude, such an inactive interest, reflects upon our ambitions for an education. It is true that never again will the rank and file of us have the same advantages thrust into our hands as during the four years here in Boston, and it is parasitic in a way not to make the most of them. It is urged that the lectures offered by the Institute be more fully attended.

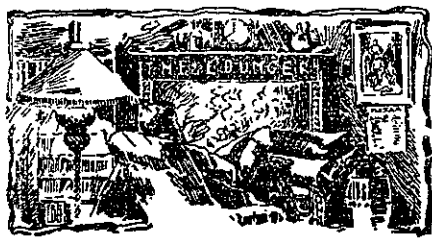
There are numerous additional opportunities outside the Institute. The Lowell Lectures at Rogers, the Sunday Lectures at the Old South Church, at the Boston Public Library, and at the Museum of Fine Arts, all offer a variety of subjects and a quality of material that should not fail to appeal at some time to all of us. They constitute an extensive free university presenting to those in Boston a chance to add to their specialized training a well-rounded culture and a mind informed with valuable general information. A perusal of any Saturday paper will give any necessary information about these lectures.

## THANKSGIVING VS. TURKEY

WHAT does Thanksgiving bring to your mind? Are you one of those gourmands who thinks only of his stomach? Do you think of a big dinner as synonymous with our great national holiday? Are you a brown bagger who thinks of Thanksgiving as a day upon which back problems in Heat Engineering may be made up? Or are you by any chance that rare man who remembers that Thanksgiving Day was established for the purpose of giving thanks for all the gifts of God or of Nature?

The day has gradually lost the religious significance attached to it at its founding. In the early years of our country, Thanksgiving Day was set aside for the returning of thanks to the Almighty for all the blessings received in the course of the preceding year. The religious side was of foremost importance. Gradually, however, the day became one of national rejoicing and feasting. Football games have replaced the church services of bygone years. Turkey dinners have supplanted the prayer of thanks. Triple E and Applied Mechanics problems in many cases become the order of the day at Technology.

Forget about lessons for one day at least. Remember that you have something to be thankful for. What if you did get a Vote Nine last term? Thank God that it wasn't a Vote Ten! Try to get a little bit of rejoicing into the day. Thanksgiving is one of America's oldest traditions. Let us do our share to keep it in existence. The giving of thanks once a year is not such a terrific hardship. Remember how much good has come your way in the past year and be thankful.



What is more depressing than to see a strong man tearing his hair in anguish over a silly little Triple E problem? On Saturday the Lounger saw one man just about to burst into tears because he could not decide which of two formulae to use. After gazing at them for some minutes he was suddenly struck by a brilliant idea. He tossed a quarter into the air, watched it with the eye of a hawk about to seize its prey, picked it up, gave it one eager glance, and his face wreathed in smiles, proceeded to do the problem in the last five minutes of the period. The Lounger certainly hopes he got it right! A man with so much sporting spirit deserves to win.

There is only one thing worse than the above-described sight of a man in a Triple E fog, and that is the spectacle of an otherwise normal student in the throes of solving a cross word puzzle. The perpetrators of the cross word puzzle rage have certainly started something which makes the mah-jong craze by comparison a mere nothing. Even at the height of that peculiar fad one never heard of such universal addiction as the cross word is causing. Who ever heard of mah-jong being such a nuisance that office managers had to issue stern edicts to keep their minions attending to business instead of punting and chowing? And yet just the other day the Lounger read in the papers (of course that doesn't prove it) that cross word puzzles were becoming so popular during office hours that the manager of the United States Tire Company office in New York had to put his foot down hard to stop it.

Worse than this, and nearer home, one can't even enjoy the customary snooze on the ten o'clock train in from Wellesley on a Saturday night without being rudely awakened by the frantic demands of a fellow student rushing up from the other end of the car to ask for a "three letter word meaning behold." The other night the Lounger noticed in just one car three pairs of students frantically trying to solve puzzles, and heaven only knows how many others on the same train were under the influence.

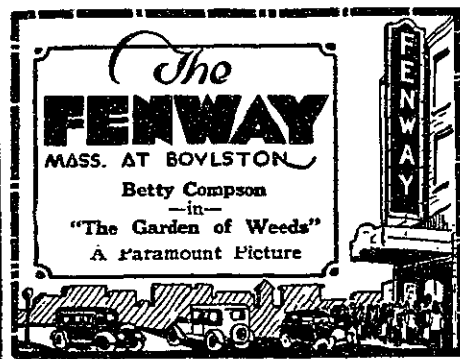
Some of the more careful thinking addicts often advance, rather shamefacedly, the excuse, "Well, they certainly help your vocabulary." Fine, bravo! Anything that will help the college man's sadly neglected vocabulary certainly is a blessing, even if it is in such a potent disguise as a cross word puzzle. Even so, the Lounger has his doubts as to the desirability of adding to one's vocabulary such things as the "extinct African bird" and scores of chemical symbols.

## MAINE FORESTERS SEE PRACTICAL LUMBERING

Men majoring in Forestry at the University of Maine will spend nine weeks in the north woods at lumber camps this year in order to learn something about the practical side of forestry. The Great Northern Paper Company has built a series of camps near its big lumbering operations so that the Maine students may see how things are done in the woods, as well as get a theoretical knowledge from books. It is considered likely that in future years the nine weeks of practical experience will be made a graduation requirement for those majoring in forestry.

## Play Directory

**BOSTON OPERA HOUSE:** "Cyrano de Bergerac." Walter Hampden. Last week.  
**COLONIAL:** "Stepping Stones." Delightful extravaganza by the Stones.  
**COPLEY:** "Captain Applejack." Mr. Clive in the leading role.  
**HOLLIS:** "The Nervous Wreck." Side-splitting slapstick.  
**MAJESTIC:** "Janice Meredith." Moving picture.  
**PLYMOUTH:** "The Potters." Clever dramatic cartoon of everyday life.  
**ST. JAMES:** "The Old Homestead." Famous old melodrama brought to life again.  
**SHUBERT:** "Artists and Models." Opens tonight for two weeks' stay.  
**SELWYN:** "For All of Us." William Hodge.  
**TREMONT:** "Saint Joan." Last week here of Shaw's famous drama.  
**WILBUR:** "Moonlight." Musical comedy.



## Professor Sedgwick, Noted Educator, First Biology Head at Institute

(Editor's Note:—This is the fifth of a series of biographical sketches of the famous Institute men represented by the new pictures in the main hall of Walker Memorial. Others will be published from time to time.)

William T. Sedgwick, Ph.B., Ph.D., Sc.D., L.L.D., a son of William Sedgwick, and a descendant of Robert Sedgwick who settled in Boston in 1638, was born in West Hartford, Conn., December 29, 1855. He received his preparatory education at the Hartford High School; and then entered the Sheffield Scientific School of Yale University to take a course in Biology in preparation for the profession of medicine. Following his graduation in 1877, he spent two years at the Yale Medical School, at the same time teaching physiological chemistry at the Sheffield Scientific School. Becoming interested in another phase of his work, Mr. Sedgwick abandoned his intention of becoming a physician, and began to devote himself to a career in general biology and experimental physiology. In pursuit of this object, he entered Johns Hopkins University in Baltimore, Maryland; and in 1881 was graduated with the degree of Ph.D. He spent the next two years as instructor at the University, his mark-

ed ability to teach having won the recognition of his professors. In 1883 he was called to the professorship of Biology at the Massachusetts Institute of Technology; and there, at the Institute, he spent the rest of his life. He became the first head of the Department of Biology and Public Health, the institution of which, it might be added, was due, in no small measure, to his tireless efforts and most meritorious work.

Professor Sedgwick acquired a distinction in his chosen profession, which placed him in the foreground of the field of Education; it carried him in 1917 to the Pacific Coast, where he delivered a series of lectures at the University of California; and in 1920 he was the first exchange professor at the Universities of Cambridge and Leeds, in England. For twenty-four years he was curator of the Lowell Institute, doing a great deal to broaden the prestige of that Society.

The names of the many learned societies of which Professor Sedgwick was a member cannot be enumerated in this brief article; suffice it to say, however, that all were honored by his membership and counsel. He died in January 25, 1921 in Boston.

## TEXAS CONTRIBUTES \$1000 TO CHURCHES MONTHLY

Approximately \$1000 is given monthly to the churches at the University of Texas. An average of \$235 is contributed each Sunday, which in months of four Sundays comes to \$940, and in those of five Sundays, to well over \$1000. Of the 4304 students registered at the University, figures show that over 1,500 are present at the various campus churches every Sunday. This means that the average student contributes about 15 cents each week, which is a rather high figure for so large a body, according to church superintendents. The approximate total does not include the funds given by student organizations or young people's associations. Campaigns are now being launched to increase the church attendance.

## McGILL CO-EDS DEBATE

An intercollegiate debating league has been formed in Canada among women students. McGill University, Varsity and Queens University will be represented. Inter-Class debates at McGill have given the co-eds there quite a bit of experience. In a recent debate between first and second year students, the Sophomores proved that capital punishment should be abolished.

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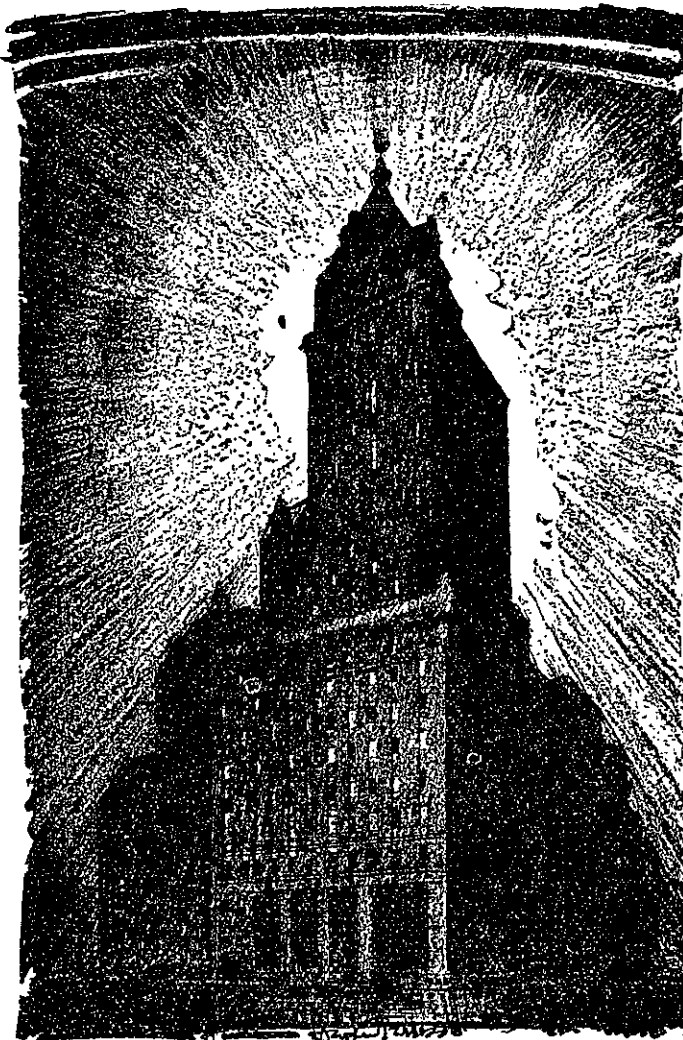
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# HARRIERS ENTERED IN I.C.A.A.A. TODAY

## Strong Freshmen Team To Compete In Title Run

### HARRIERS RUN IN TITLE RACE TODAY AT VAN CORLANDT

Both Freshmen and Varsity Have Strong Teams In I.C.A.A.A.

OVER 100 ENTRANTS

(Continued from Page 1)

The only entry from the Pennsylvania college. William R. Sullivan, who has gained considerable fame as a runner for the Paulist A. C., will carry the Georgetown colors in the race. Columbia is entering a team which has several star performers. Captain Will Schmidt, John Theobald and Collins Norton are expected to figure in the early scuffle for the finish line. Bates, Colby and several of the other small New England colleges will be represented but are not expected as serious contenders for the title.

#### CAPT. FRANK BEMIS



Of The Beaver Harriers

Williams College, which romped away with the New England intercollegiate title at Franklin Park last week, will not be entered in the run today. The University of Maine, runner up last week, has not entered a team.

#### Run Over Level Course

Van Cortlandt Park course with its hurdles will be strange to the Engineer harriers. The course is practically level, however, and this should prove a decided advantage to them since all of the varsity meets this season have been run over the level Charlesbank course at Harvard. Very little hill work has been included in the routine work of the Beaver runners so that they should be in the pink of condition for this meet.

The course over which the harriers will run is six miles long and is divided into two laps. The freshmen cover only the first lap in running over a three mile course while the varsity goes the full distance.

There are four hurdles and one brush and log barrier which must be cleared each lap. One hurdle is 3 feet, 6 inches in height, two are 3 feet while the fourth is 2 feet 6 inches high. The brush obstruction is only 2 feet high but is several feet in width. Nearly five miles of the six are run on bridle paths and on the turf. There are no steep grades and the route is practically flat throughout its entire extent.

The freshmen title run which is scheduled to take place directly before the varsity run will also attract considerable attention. Captain Eddie Chute of the Engineers, star miler at Andover last year, will make a strong bid for the freshmen title. Pete Kirwin and Walt Bennett can also be depended upon to work hard in the early fight to the finish line in this event.

### NORTHEASTERN DEFEATS CHINESE ON TECH FIELD

Northeastern University's soccer team defeated the Boston Chinese Athletic Association's eleven 1-0 in a slow game on Tech Field Saturday afternoon. Northeastern had the ball down at the Chinese goal during most of the game but only once were they able to get the ball into the net. In the second half, especially, Northeastern lost several easy chances to score.

## CHUTE LIKELY WINNER OF INDIVIDUAL HONORS

Kirwin, Bennett and Meagher Expected to Finish Early in the Freshman Race—Will Run Over a Three Mile Level Course

The strongest freshman cross country team that Technology has produced since 1921, when Frank Bemis ran for the yearling team, will be entered in the annual I. C. A. A. A. run at Van Cortlandt Park this afternoon. It will be no surprise if the Engineer frosh should come off with second or third place.

Captain Eddie Chute of the first year team who was star miler at Andover last year has proved a valuable leader for the first year men. It is expected that he will make a good showing for individual honors today. Pete Kirwin, Cy Meagher and Walt Bennett, who with Chute form the nucleus of the frosh team can also be counted on to place early in the meet. Walch, Austin and Smith will complete the septet which will represent Technology.

By defeating some of the best runners which local colleges and prep schools have had to offer, Captain Chute has shown his ability and will no doubt prove a valuable man for the varsity next year. This season, he has only been defeated by the fleetfoot Al

O'Neil, captain of the Crimson freshman harriers. His defeat at the hands of the Harvard man was not decisive, losing out by only a few feet.

Last Saturday, the freshman decisively trimmed St. John's Prep in a run over a three mile course at Danvers and Chute was unofficially announced as having lowered the course record at that time. The rest of them performed creditably, placing men in the first, second, third, fourth and sixth places, missing a perfect score by just one point.

Little is known about the strength of the freshman teams which the other colleges will enter but it is expected that Yale, Syracuse and Columbia will come forth with a strong group of runners. The Harvard freshmen will not be entered.

The freshman event covers a course approximately three miles long, or just about half of that which the varsity harriers will run. The same barriers must be cleared as in the case of the varsity run, four hurdles and one brush and log barrier being encountered along the route.

## Freshmen Rifle Still Going As Strong As Ever

Final Cuts Have Been Made In Order To Reduce To Three Teams

Freshmen rifle teams are showing excellent results as the result of constant practice. The groups have been divided into teams "A," "B," and "C"; team "A" is the best, "B" ranks second, and "C" third. A practice match between these three teams is to be fired each week.

Results of the practice match held between teams "A" and "B" during the past week show that the two teams are improving rapidly. While Clahane and Elliott were the only two to turn in possibiles, five others were lacking only one point of a perfect score.

Final cuts for the three teams are as follows: Team "A": Clahane, Morrill, Mann, Harbeck, and Wengen. Team "B": Procter, Elliott, Hoke, Mathieson, and Thas. Team "C": Hatton, Oiken, Badgley, Willett, Hoffman.

Results of the practice match between teams "A" and "B":

Team "A"	Team "B"
Clahane 100	Elliott 100
Morrill 99	Hoak 99
Harbeck 99	Hatton 97
Wengen 99	Badgley 97
Procter 99	Willett 96
Total 496	Total 489

## HOCKEY TEAM HAS BRIGHT PROSPECTS

Practice Is Being Held Three Times a Week In The Boston Arena

With three men back from last year's team, the hockey season shows promise of being very successful. Practice is being held three times a week at the Arena, and the team is showing very good form. Niles, Randall, Weissner and Deignan are the regulars back for practice. Blakely and Crandall of last year's freshman team have a good chance of making the team. Deignan will probably play goal tender, the post which was held by Denton Massey last year. The schedule has not yet been announced.

The new rink in back of building ten is now complete, and will be flooded when the weather is cold enough. It measures 82 by 176 feet, and will provide an excellent place for the team to practice. The team was handicapped last year by lack of a place to practice, as the Arena was not always available. The new rink should remedy this condition, if the weather is suitable.

## Great Interest Being Shown In Handicap Meets

Ray Jack Misses Freshmen Pole Vault Record By One Inch Saturday

Last Saturday the second of the ten series handicap meets was run off by Doc Connors. The men are performing very creditably and "Doc" was well pleased with the showing. In the pole vault event a freshman jumped one inch shy of the freshmen record.

Ray Jack made 10 feet 9 inches in the pole vault just going under the freshmen record by one inch. Jack, a freshman, having competed in intercollegiate events last year is ineligible to enter in any Technology meets for another year.

The thrill of the afternoon came in the mile run event. K. A. Smith was given a 150 yard handicap while Preston started from scratch. Preston kept gaining steadily until he passed Smith when they were about 200 yards away from the finish line; but immediately Smith spurred and passed Preston, finishing with a lead of about 10 yards.

The summary: Mile run—Won by K. A. Smith (150 yds.), time 5m. 18s.; second Preston (scratch); third, Sullivan (100 yds.). One hundred-yard dash—Won by Foster (scratch), time 11s.; second, Moggio (3yds.); third, Schwartz (3 yds.).

Four hundred and forty-yard dash—Won by Kuqman (scratch), time 54 5-10s.; second, Stephenson (7 yds.); third, Thomas (12yds.). Fifty-yards high hurdles—Won by Mitchan (scratch), time 7 1-5s.; second, Collins (2 1-2yds.); third, Ware (2 1-2yds.).

High jump—Won by Browning (2 in.), 5ft. 7in.; second, Pease (3in.), 5ft 5in.; third, Fort (scratch), 5ft. 4in. Broad jump—Won by Fort (18in.), 20ft. 8in.; second, Collins (24in.), 19ft. 9in.; third, Barnes (24in.), 18ft. 6in.

Shot put—Won by Brodsky (scratch), 37ft. 7in.; second, Cheney (3ft. 4in.), 25ft. 4in.; third, Jackson (3ft.), 22ft. Javelin throw—Won by Cheney (scratch), 113ft. 2in.; second, Brodsky (scratch), 102ft.; third, Field (scratch), 100ft.

Pole vault—Won by Jack (scratch), 10ft. 9in.; second, Gray (1ft.), 10ft. 9in.; third, Howard (12in.), 10ft. 3in.

If the spirit of the hockey team keeps up we are due for an exceptional season. Three times a week the men may be seen practicing over in the Arena as early as 7:30 in the morning.

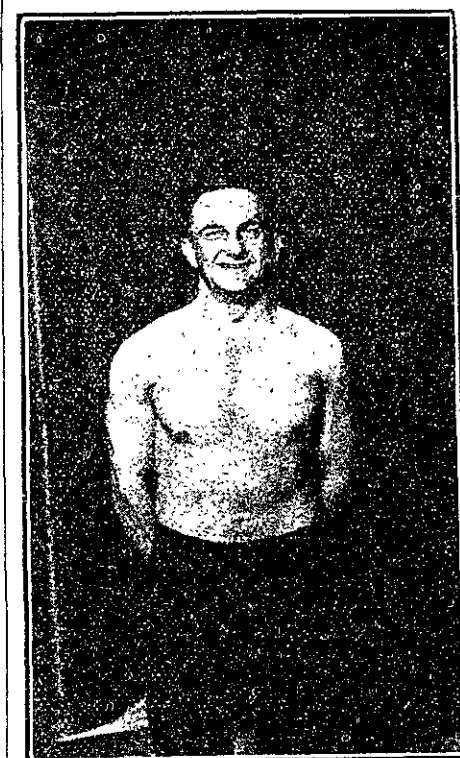
The presence of the veterans from last year is a great help in developing a strong team as they can teach the new men the tricks of the game faster than the men can learn by themselves.

## WRESTLING BOUTS START THIS WEEK

Varsity Looks Fairly Strong—Frosh Strong But Need Managers

The Technology wrestlers are fast getting down to business. Plans have been completed and everything has been prepared for a series of preliminary meets, which will begin some time this week. Candidates need not be discouraged, however, if they lose in these meets, as nothing final will be decided by them; the only purpose being to give the coach an idea of how his men line up. The regular teams will not be picked until next term, so any men who do not win in the preliminary meets should stay out and try all the harder to make the team.

#### F. W. GREER '25



Wrestling Captain

From the looks of things competition should be sharp this year, as there are only four veterans back. Therefore, three of the seven weight classes are open to new men. The four veterans will of course be the backbone of the team, and it is in their classes that the team will be strongest. Captain Fred Greer, the star of the team, will take care of the 175-pound class. Tuttle the 125-pound class, Coyle the 115-pound class, and Tryon the unlimited class, leaving the 135-pound, 145-pound, and 158-pound classes for the candidates to try for.

(Continued on Page 4)



Damon—  
"What are you doing, Pythias—writing Her another letter!"

Pythias—  
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### NEW TYPE OF PULLMAN ON MERCHANT'S LIMITED

We extend our heartiest congratulations to the New York, New Haven and Hartford Railroad, on the appearance of a new type of Pullman car. While the car is not yet in service on quite all the trains, it is on the Merchant's Limited. No doubt we who travel on the Merchant's Unlimited will have to wait some little time for the appearance of the cars on trains on which we travel; still it may well be the basis of an optimistic line of thought.

The all-steel cars are painted gray with a gold stripe on the inside. They say the lighting is the "suns only rival" which feat is accomplished by dome floodlighting. The seats are smaller, and set lower, thus insuring the passenger a more comfortable trip through the wilds of Dorchester and points South. Dark carpeting, contrasting pleasingly with the lighter shades of the paneling and ceiling (chosen by the latest approved psychological methods, conducive to the good-humor of passengers), extends the length of the aisle which is wide enough to allow a person to carry his suitcase without dislocating his kneecap. One of the most interesting innovations is one which, it is said, "provides for the proper supply of fresh air, at the same time excluding dust and cinders."

We wonder if modern science has offered anything as a substitute for the justly famous "vest-pocket drinking cup." There are many other salient features the reality of which a trip alone can tell.

### DANGERS OF ETHYL GAS GREATLY EXAGGERATED

Continued from Page 1)

Use of ethyl gas is justified because of the benefits to be gained by it. It was discovered by the Research Laboratories of the General Motors Company that organic compounds of lead when added to motor fuels slowed up the explosion in such a manner that its force is spread over a longer period of time. It was then found possible to increase the compression in the motor without appearance of the knock, and higher compression means higher efficiency in the gasoline motor. By the use of a special automobile and standard ethyl gas, it was found possible to get an average of over 35 miles per gallon under ordinary driving conditions.

Technology did much of the development work for making ethyl gas on a commercial basis. Work was carried on in the Chemical Engineering Department for about two years, and in that time a new method was turned out in addition to the improvement on the old ones. Mr. Brian Mead and Dr. G. Calingaert, Research Associates in the department worked for some time on this subject.

### DAVIS WANTS FUMBLE RULE TO BE CHANGED

Parke H. Davis, a former member of the Football Rules Committee advocates a rule prohibiting a man from picking up a fumbled ball. He advocates a radical change in the existing rules to eliminate the chance of a touchdown as the immediate result of a fumble.

"This feature of football is uncouth, unfair and a relic of a long bygone era," argues Mr. Davis. "The proper disposition of this fluke play is to change the rules so that the ball shall be put down for scrimmage at the point where a fumble is recovered by the side recovering the fumble and no run allowed. If the fumble is recovered behind an opponent's goal line the ball shall be put in play at the point where it was fumbled."

### CONSTRUCTION CORPS WANTS SUMMER COURSE

The office of the Construction Corps of the Navy Department here at the Institute is initiating correspondence in regard to arranging for summer instruction for its regular students. Believing in the value of the Course in Mechanical Arts, Captain Elliot Snow highly favors it as a supplement to the regular course of instruction. Formerly it has been the custom of the department to assign men work of this sort at the Navy Yard.

Captain Snow has recently written a five Material Bureaus of the Navy with the purpose of getting a number of additional naval exhibits for the Marine Museum of the Pratt School of Naval Architecture. A material extension of the exhibition room will be necessary if hopes are realized.

The Navy Department hopes to make it possible soon for students at the Institute so inclined to be enrolled as members of a naval R. O. T. C. Plans, however, are not fully formulated.

### MRS. CATT SPEAKS ON POLITICS AND PARTIES

#### Said Politics Originated In the Garden of Eden

"The spirit of partisanship blinds the eyes, deafens the ears, and not infrequently ossifies the understanding," said Mrs. Carrie Chapman Catt in a speech delivered before the Institute of Arts and Sciences at Columbia University recently.

"It might be said that politics began in the Garden of Eden, centering around an apple," said Mrs. Catt in opening her address. "It has played a part in human life since the beginning of things. Politics plays some part in every family, and in a larger sense it may be said that world politics is but an enlargement of family politics."

Continuing, she stated that it was natural for any group to divide into two parties. "These parties create a monstrous force which we know as partisanship. To my mind there is nothing in the world like partisanship. We move toward the polls with our minds warped and crippled. The election degenerates into a contest between you and your party and me and my party. That is the way politics works out. Parties at times use methods just as unscrupulous as those of opposing generals. I stand before you here now and tell you that I have seen members of both parties buy and sell votes."

McGill Daily.

### WRESTLERS WILL MEET OPPONENTS THIS WEEK

(Continued from Page 3)

Another reason for trying hard this year is that there will be two teams, both of which will compete in the Intercollegiate next Spring. The object of this plan is to get a larger number of men in the meets with other colleges, as well as a larger representation in the Intercollegiate. The Technology team won the Intercollegiate over Brown and Harvard last year, and with reasonable success will repeat this year. Still a third reason for making the team is the fact that there will be a duel meet with Harvard this year besides the meet in the Intercollegiate, giving our team two chances at them—and who wouldn't enjoy beating Harvard twice in the same year?

The freshman candidates are progressing rapidly too. One thing that is worrying them, however, is the shortage of managers. Candidacy for the position of manager should hold some attraction, because at the end of the second term comes promotion to assistant manager, and in the Junior year promotion to manager. So let's see some of the freshman business sharks do their stuff.

### ADDITIONAL STUDENTS TO BE CADET OFFICERS

Additional Cadet Officers in the R. O. T. C. announced by the Department of Military Science are as follows:

To be First Lieutenants: C. E. Knight '25, H. E. Weihmiller '25, C. A. Ross '25, J. H. Rountree '25.

To be Second Lieutenants: D. E. Elmendorf '25, R. W. Rogers '26, C. L. MacLapchlin '26.

### Notices and Announcements

#### OFFICIAL

#### 5.941 RECENT DEVELOPMENTS IN SCIENCE

The eighth meeting will be held Thursday, December 4, at 4 P. M. in room 10-250. Professor S. C. Prescott, Head of the Department of Biology and Public Health, will talk on Recent Applications of Bacteria in Tanning.

G.S. 46

Men interested in debate report to room 2-190 today, Wednesday, and Thursday or to room 2-130 tomorrow and Thursday between 1 and 2. Mr. D. M. Fuller, instructor.

#### UNDERGRADUATE

##### RIFLE TEAM

Candidates for the varsity rifle team are requested to report at the range Monday between 3 and 5 in the afternoon, or on Friday between 2 and 5.

##### COMBINED MUSICAL CLUBS

Freshman candidates for the business department of the Musical Clubs may interview Messrs. Walker, Hatley, or Garen any day at 5, in the office, 310 Walker.

##### M. I. T. COMBINED DRIVE

All pledges should be redeemed as soon as possible. They may be paid in the front office of the T. C. A. any day from 9 to 5 o'clock. Receipts will be issued.

#### WRESTLING COMPETITION

Wrestling managerial competition is open to all freshmen. Apply to A. A. office after 5 o'clock.

#### M. I. T. A. A.

Sophomores wanted for Publicity Dept. Report at A. A. office any day next week.

#### SWIMMING

All classes are asked to get together within this week to elect their captains for the big inter-class water carnival to be held just before the end of this term. Little time is left for organization.

#### FRESHMAN RIFLE TEAM

Report for practice hereafter on Mondays and Thursdays, 2:15-5:30. Range open Wednesdays, attendance optional. See bulletin board in range for new schedule of firing, to be effective Monday, Nov. 24.

#### COMPLIMENTARY TICKETS

The T. C. A. has received additional passes for the "Alexander Brailowsky" concert (pianist) this afternoon at Jordan Hall. Concert starts at three. Anyone wishing to attend please call at the T. C. A. office. Passes must be changed for reserved seats before 1:30 this afternoon.

#### Varsity Rifle Team

Practice days have been changed from Monday to Tuesday. Friday's practice will be held as usual. Candidates report either day between 2 and 5:30 o'clock.

## Russian Students Now in America

### But Are Officially Dead In Russia

In Russia, his native land, Eugene Procopovitch is dead, that is officially dead, yet he is a Junior here enrolled in the department of agricultural engineering in Ohio University.

Within the past 10 years he has had a series of experiences ranging from service with the English troops at the Dardanelles to work on a coffee plantation in Brazil.

When the war broke out in 1914, Procopovitch was a cadet in the Imperial Russian Navy stationed at Cairo, Egypt, on the "Orel," a training ship. He was transferred to the British fleet at the Dardanelles as an interpreter. In an engagement fought near Odessa he was wounded and was blind for three months. Gallantry in action won for him the Victory Cross and the Imperial Russian decorations.

Following his recovery from the wound, he was sent to Uetrograd as an attaché of the Imperial Naval staff, followed by a furlough in Egypt.

The next chapter in the life of the Russian was one that changed his life altogether. Procopovitch was assigned to a Russian ship, located near Odessa. Fearing that the Bolshevik government would obtain possession of the ship, the crew opened the seacocks and sank the vessel. The crew went into hiding, since the Bolshevik government offered rewards for the apprehension of the members of the crew. The Imperial government was responsible for a news story sent out, in which all members of the crew were said to have perished.

All avenues of escape were being guarded closely, but through an influential friend, Procopovitch was able to arrange for a passage to Greece on the American ship St. Louis. The escape was successful and Procopovitch went to France.

Here he met a friend who had also been a cadet in the Imperial navy. The two arranged for passage to South America and landed at Sao Paulo, Brazil. They secured work on a coffee plantation. Procopovitch might have been telling of slavery as it existed in the Southern states before the Civil War. The plantation laborers were paid one "milreis" a day for their services. The owner then charged them two "milreis" a day for their board and lodging.

"Escape from the plantation is possible only at the risk of life, since the plantation owner is the lord of his whole domain," Procopovitch says. The two boys struggled through the wilderness and finally reached the Soa Paulo.

Their next move was to attempt to work their passage to the United States. French captains were antagonistic when they learned the nationality of the men, and refused their request. Procopovitch and his companion then attempted passage as stowaways, but before the boat had left the harbor, they were discovered and put off.

An appeal to the American consul resulted in a job on a construction gang. After saving money for their passage the two finally arrived in New York.

An array of odd jobs followed, after which they registered at the University of Cincinnati. There Procopovitch's companion is still a student.

Procopovitch registered at Ohio State University this fall, and intends to graduate here. He speaks six languages.

Ohio State Lantern.

### BIOLOGY DEPARTMENT WILL GIVE LECTURES

"The Habitat and Behavior of Living Things" will be the subject of a series of three illustrated lectures to be delivered by W. L. Underwood, special lecturer in the Department of Biology and Public Health on Tuesday, Thursday and Saturday, December 2, 4 and 6. The third talk will be given on Saturday and not on Friday, December 5, as announced in the last issue of THE TECH.

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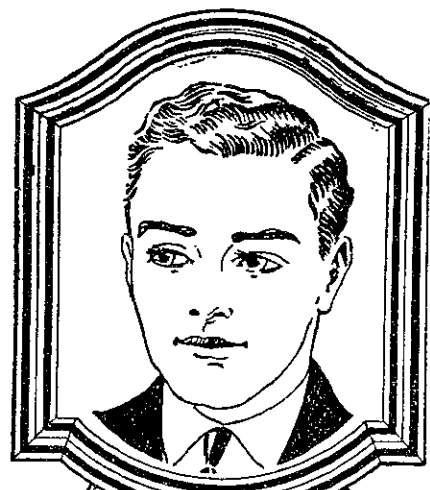
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